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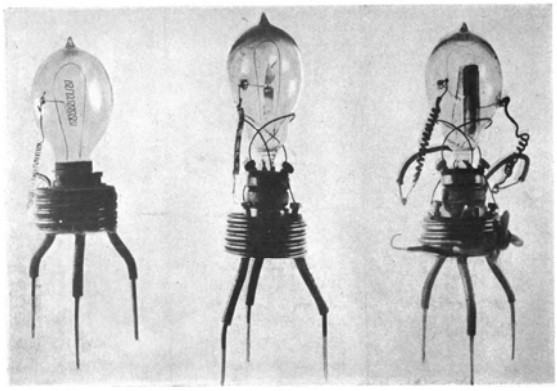
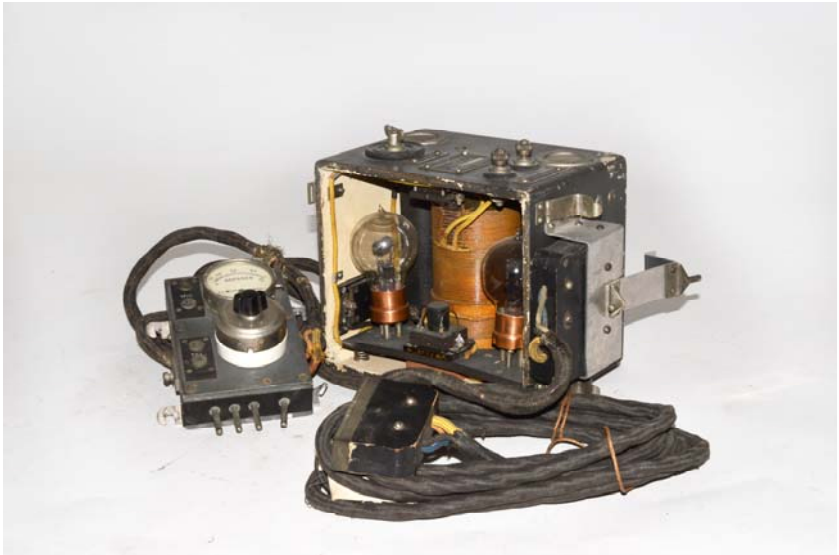
HISTORY OF SIGNALLING IN 100 OBJECTS
THE THERMIONIC VALVE USED IN EARLY RADIOS



The above left photograph shows the first prototypes of Professor Flemming's thermionic valves that were invented in 1904. These were able to rectify an alternating current (AC) to Direct Current (DC) that "pulsed". These valves by 1910 were able to be used by companies such as the Marconi WT Company to develop more reliable radio sets and overcome the problems that had made the early radios impractical in a tactical situation. The thermionic valve remained in use with radios until it was replaced by the transistor in the late 1960s and early 1970s. The introduction of the transistor was to lead to the miniaturisation of radios that we have come to expect today.



The early radios that used these valves or developments of the prototypes shown above remained bulky and required a large amount of battery power. The sets were able to operate on the medium and long wave frequencies. Shown above right is the Wireless Set Wilson 130 Watt transmitter. This was a long wave transmitter that could work to the Short Wave Tuner Mark 2 and many other receivers. This transmitter was powerful and quite compact for its day if compared to some of the earlier transmitters that required 3 men to carry the basic equipment plus another 3 men to carry the batteries and the antenna systems. The valves are exposed on the top of the transmitter, but are difficult to see. The photograph on the right shows a clearer picture of these early valves used with communications equipment at this time.